

## Recombinant Equine Interleukin-2 (req IL-2)

**Synonyms:** T-cell growth factor (TCGF), Aldesleukin, Lymphokine

**Introduction:** IL-2 is a secreted cytokine that is important for the proliferation of T and B lymphocytes. The receptor of this cytokine is a heterotrimeric protein complex whose gamma chain is also shared by Interleukin 4 and Interleukin 7. The expression of this gene in mature thymocytes is monoallelic which represents an unusual regulatory mode for controlling the precise expression of a single gene. The targeted disruption of a similar gene in mice leads to ulcerative colitis-like disease which suggests an essential role of this gene in the immune response to antigenic stimuli.

**Description:** Recombinant equine IL-2 produced in *E.Coli* is a single, non-glycosylated polypeptide chain containing 131 amino acids and having a molecular mass of 15.1 kDa. The req IL-2 is purified by proprietary chromatographic techniques.

**Source:** *Escherichia Coli*.

**Physical Appearance:** Sterile filtered white lyophilized (freeze-dried) powder.

**Formulation:** Lyophilised from a 0.22 µm filtered solution in PBS, pH 7.4

**Solubility:** It is recommended to spin down before reconstitution. Reconstitute the lyophilized req IL-2 in sterile water to a concentration not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

**Stability:** Lyophilized req IL-2 although stable at room temperature for 3 weeks, should be stored desiccated below -18° C. Upon reconstitution req IL-2 should be stored at 4° C between 2-7 days and for future use below -18° C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

**Purity:** Greater than 95.0% as determined by SDS-PAGE Silver stain.

**Endotoxicity:** The endotoxin level is less than 1 EU / µg determined by LAL method.

**Amino acid Sequence:** MSAPTSSSKR ETQQQLKQLQ MDLKLLEGV NNNKNPKLSK MLTFKINMPK KATELKHLC LEEELKPLEE MLKNFLSKDI KELMSNINVT VLGLKGSETR FTCEYDDET GTIVEFLNKWI TFCQSIFSTM T

**Biological Activity:** Determined by its ability to induce proliferation of murine cell line D10.G4.1 the ED<sub>50</sub> was found to be 5 ng/ml.

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|               |        |        |          |
|---------------|--------|--------|----------|
| <i>small</i>  | 5 µg   | Cat.N° | 18340020 |
| <i>medium</i> | 20 µg  | Cat.N° | 18340024 |
| <i>large</i>  | 100 µg | Cat.N° | 18340026 |

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Gladiolenweg 2; 26169 Friesoythe; Germany  
 phone:+49-(0)4491-400997, fax:+49-(0)4491-400998, [info@immunotools.com](mailto:info@immunotools.com)  
[www.immunotools.com](http://www.immunotools.com)